

### **REMARKS**

This amendment is submitted with a request for two months extension, appropriate fee and a Request for Continued Examination in reply to the outstanding final Office Action dated December 15, 2005, and the Advisory Action dated April 11, 2006. Claims 1, 3-11, 13-16, 18 and 20-23 currently stand rejected and are the only pending claims in the present application. Applicants have amended independent claims 1, 7 and 18 to more particularly distinguish the claimed invention from the cited references. Claims 5, 6 and 14-16 have been amended to correct their dependencies. Newly added claims 24-26 have been added to further define patentable aspects of the invention. No new matter has been added by the amendment. Claims 4 and 13 have been canceled.

In light of the amendment and the remarks presented below, Applicants respectfully request reconsideration and allowance of all now-pending claims of the present invention.

#### **Claim Rejections - 35 USC §103**

##### **Claims 1, 3-5, 7-11, 13, 14, 16, 18 and 20-23**

Claims 1, 3-5, 7-11, 13, 14, 16, 18 and 20-23 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Merchant et al. (U.S. Patent No. 6,775,290, hereinafter "Merchant"), in view of Rijhsinghani et al. (U.S. Patent No. 6,526,052, hereinafter "Rijhsinghani"), and further in view of Denning et al. ("Location-Based Authentication: Grounding Cyberspace for Better Security"; copyright 1996; pages 1-6, hereinafter "Denning"). Claims 4 and 13 have been canceled, without prejudice, thus the rejections of claims 4 and 13 are now moot.

#### **I. The cited references fail to teach or suggest querying for location information if a data packet fails to include location information.**

Independent claim 1 has been amended to recite, *inter alia*, a querying agent configured to request transmission of location information associated with the plurality of port identifiers

from the associated access concentrator in response to receipt of data packets that fail to include location information. It should be noted that this feature was previously recited in dependent claim 4.

In the final Office Action, the Examiner stated that the above recited feature was not distinctive over the references since, "in a VLAN enabled networking environment, it is possible to configure the environment so that a data packet with no identifier will be discarded. Hence, there is no need to request transmission of the port identifiers for a packet which includes no information." Applicants respectfully submit that the above passage does not constitute proper grounds for rejection, and furthermore, that the cited references fail to teach or suggest such feature.

Initially, the quotation above appears to be an improper use of personal knowledge, since no basis is provided from the references and official notice has not been taken of the quoted statement. However, even if a basis existed from the references or if official notice were taken of the allegations put forth in the cited passage, it is still unclear how such a statement could be relied upon to support a rejection of the claimed invention, since even if the above quotation were assumed to be true there would still be no basis for rejection. In this regard, the claimed invention is directed to requesting location information associated with a port identifier if a data packet fails to include such information. Configuring a network to discard data packets without location information is completely unrelated to the claimed feature. Furthermore, imagining a network without any need to request transmission of port identifiers in no way anticipates or renders the claimed feature obvious. Indeed, the contention that data packets without an identifier are discarded in a VLAN enabled networking environment actually teaches away from affirmatively requesting location information as set forth by amended independent claim 1. Thus, the above quoted passage is in no way expressive of how any of the cited references teach or suggest the claimed feature.

Moreover, the cited references fail to teach or suggest the claimed feature. In both Merchant and Rijhsinghani, VLAN tags or identifiers are transmitted with data packets. Thus, no **querying agent** is taught or suggested by Merchant or Rijhsinghani which requests transmission of port identifiers in response to receipt of data packets that fail to include location

information as claimed in independent claim 1. Denning discloses authentication via GPS based location signatures in which GPS location data is requested from a remote client, however, port identifiers are not requested, nor is anything requested from an access concentrator.

Accordingly, since Merchant, Rijhsinghani and Denning each fail to teach or suggest a querying agent configured to request transmission of location information associated with the plurality of port identifiers from the associated access concentrator in response to receipt of data packets that fail to include location information as claimed in independent claim 1, any combination of the cited references also fails to teach or suggest the subject matter of independent claim 1. Thus, the cited references, taken either individually or in combination, do not render independent claim 1 obvious. Independent claims 7 and 18 have been amended to recite similar subject matter to that of independent claim 1 with respect to querying for location information in response to receipt of data packets that fail to include location information. Accordingly, independent claims 7 and 18 are patentable for at least the same reasons given above for independent claim 1. Additionally, claims 3, 5, 8-11, 14, 16 and 20-23 depend either directly or indirectly from one of independent claims 1, 7 and 18 and thus include all the recitations of their respective independent claims. Thus dependent claims 3, 5, 8-11, 14, 16 and 20-23 are patentable for at least the same reasons given above for independent claims 1, 7 and 18.

Accordingly, Applicants respectfully submit that the rejections of claims 1, 3, 5, 7-11, 14, 16, 18 and 20-23 are overcome.

**II. The cited references fail to teach or suggest a location-specific connection port as claimed in the independent claims.**

Although Applicants believe the independent claims are patentable for at least the reasons stated above, there are still further reasons for the patentability of the independent claims. For example, independent claim 1 recites, *inter alia*, a processor that communicates with an access concentrator to receive a plurality of port identifiers assigned by the access concentrator wherein each port identifier is associated with a location-specific connection port. In other words, the present application discloses a method and apparatus for implementing location-based

identification in a communication network. Such location-based identification is not limited to identification of a particular address or port, as disclosed in the cited references. Rather, location-based identification identifies service recipients by their location and not just by port or address. Thus, for example, a floor of a building, a wing of a building, or an entire building may be one location in which **all ports have the same location-specific identification** (see page 10, lines 23-25).

The final Office Action and Advisory Action both cite Merchant as disclosing a location-specific connection port. To the contrary, Applicants respectfully submit that no such disclosure exists in Merchant and thus, Merchant fails to teach or suggest a location-specific connection port. Specifically, the final Office Action asserts that Merchant discloses a location-specific connection port at col. 1, lines 54-59 and col. 1, lines 39-43. However, at col. 1, lines 54-59, Merchant merely discloses "storing VLAN data indicating a plurality of VLAN identifiers corresponding to the multiple VLANs supported by the port" and comparing "the VLAN identifier of a data packet received via the port ... with the plurality of VLAN identifiers ... [of] the stored VLAN data". This cited passage of Merchant is completely devoid of any teaching or suggestion that any of the VLANs or even any of the VLAN identifiers is location-specific. In fact, there is nothing location-specific about either a VLAN identifier or a VLAN group that would even suggest location specificity unless, for example, a VLAN group was specifically defined to correlate to a specific location. No such teaching or suggestion exists in col. 1, lines 54-59 of Merchant. Furthermore, at col. 1, lines 39-43, Merchant merely discloses that "many VLAN implementations define VLAN membership by groups of switch ports. For example, ports 1, 2, 3, 7 and 8 on a switch make up VLAN A, while ports 4, 5 and 6 make up VLAN B. Alternatively, VLAN membership may be based on MAC addresses." This cited passage is similarly devoid of any teaching or suggestion of location specificity associated with either of the groups VLAN A or VLAN B. Defining a VLAN group in terms of a plurality of ports is in no way suggestive that the grouping was made based on any location much less that the VLAN group is associated with a specific location. In fact, Merchant fails to teach or suggest that any VLAN group correlates to a specific location.

The final Office Action proposed a scenario in which ports from a certain floor to which machines from department C are connected are within one of the VLAN groups. The final Office Action then asserted that the machines that are associated with the VLAN group “are specifically located on a certain floor of a building”. The Advisory Action further states that Merchant discloses at col. 1, lines 22-23 that “VLANs may be created to combine workstations by department”. The Advisory Action proceeds to assert that it is “a very well known business practice to group members of a department together to a general location such as a floor of a building, or a building itself”. Applicants respectfully point out that such the scenarios described above are not disclosed in any of the cited references and thus, the statement in the Office Action fails to even assert that Merchant teaches or suggests a location-specific connection port as claimed in independent claim 1. Furthermore, even if the precise scenarios proposed were disclosed in Merchant, Merchant would still fail to teach or suggest a location-specific connection port since the mere fact that some ports in a VLAN group are collocated on the same floor does not suggest that the connection ports are location-specific without some evidence that the ports or at least the group is defined based on location. Since Merchant lacks any such disclosure, Merchant fails to teach or suggest a processor that communicates with an access concentrator to receive a plurality of port identifiers assigned by the access concentrator wherein each port identifier is associated with a location-specific connection port as claimed in independent claim 1.

It should also be noted that Applicants have not admitted that Merchant suggests, “for example, a VLAN group was specifically defined to correlate to a specific location” as suggested in the Advisory Action. To the contrary, Applicants have asserted quite the opposite and the quotation cited in the Advisory Action takes Applicants’ comments out of context by excising the portion of the sentence that gives its proper meaning. The correct quotation should have been, “there is nothing location-specific about either a VLAN identifier or a VLAN group that would even suggest location specificity unless, for example, a VLAN group was specifically defined to correlate to a specific location”.

Since Merchant does not disclose a location-specific port, the Examiner is using personal knowledge to fill in the gaps between the claimed invention and Merchant. The Examiner can

use “common knowledge” in a rejection by taking official notice of a fact, however, according to MPEP 2144.03, it is not appropriate to do so unless the facts asserted are capable of instant and unquestionable demonstration as being well-known. Additionally, as was stated in MPEP 2144.03 regarding *In re Zurko*, 258 F.3d 1379, 1385, 59 USPQ2d at 1697, “the Board cannot simply reach conclusions based on its own understanding or experience – or on its assessment of what would be basic knowledge or common sense. Rather, the Board must point to some concrete evidence in the record in support of these findings.” Since no basis for the Examiner’s statement regarding location specificity of ports can be found in Merchant, Applicants “seasonably challenge” the Examiner’s use of personal knowledge to fill in the gap under MPEP 2144.03 citing the patent laws.

Rijhsinghani fails to cure the deficiency of Merchant. The Advisory Action appears to assert that Rijhsinghani also teaches or suggests such feature at col. 6, lines 55-60. In summing up the disclosure of the cited passage, the Advisory Action asserts that the cited passage clearly shows that the switch has the ability to identify that a specific port is associated with a particular VLAN. However, even assuming for the sake of argument that the assertion above is correct, Rijhsinghani, in general, and the cited passage, in particular, still fails to teach or suggest a location-specific connection port since the specific port of Rijhsinghani is neither taught nor suggested to be location specific as claimed in the claimed invention.

Rijhsinghani discloses “[determining] the appropriate VLAN tag to add to the communication before transmission via the trunk port to the high speed LAN backbone or trunk 265” (col. 9, lines 39-42). However, there is no teaching or suggestion in Rijhsinghani, in general, or the cited passage, in particular, that the VLAN tag is associated with a **location-specific connection port** as claimed in independent claim 1. Furthermore, Rijhsinghani specifically teaches that VLANs may be defined as either port based, protocol based, address-based, or some combination of port, address and protocol based (col. 9, lines 30-34). In light of Rijhsinghani’s specific teaching of VLANs defined as other than location-based and the absence of any teaching or suggestion of location-specific connection ports in Rijhsinghani, it cannot be fairly suggested that Rijhsinghani teaches or suggests **a processor that communicates with an access concentrator to receive a plurality of port identifiers assigned by the access concentrator**

wherein each port identifier is associated with a **location-specific** connection port as claimed in independent claim 1.

The Advisory Action further refers to Denning as describing a network that can authenticate a user via a location signature. However, Denning fails to teach or suggest that such location signature is provided by a **location-specific connection port**. Thus, Denning also fails to teach or suggest each port identifier is associated with a **location-specific connection port** as claimed in independent claim 1.

Since Merchant, Rijhsinghani and Denning each fail to teach or suggest a processor that communicates with an access concentrator to receive a plurality of port identifiers assigned by the access concentrator wherein each port identifier is associated with a **location-specific connection port** as claimed in independent claim 1, any combination of the cited references also fails to teach or suggest the subject matter of independent claim 1. Thus, the cited references, taken either individually or in combination, do not render independent claim 1 obvious.

Applicants respectfully submit that independent claims 7 and 18 also recite a **location-specific connection port** as claimed in independent claim 1. Since the cited references fail both individually and in combination to teach such feature, independent claims 7 and 18 are patentable for at least the same reasons as given above for independent claim 1. Furthermore, independent claim 7 recites, *inter alia*, that the **location-specific connection ports are identified by assigning a port identifier that is mapped to a location of the connection port**. A similar recitation is also found in independent claim 18. None of the cited references teach any such mapping. In particular, Merchant discloses tables for associating particular VLAN ports with particular VLAN groups (see Figures 7-9). However, Merchant fails to suggest any mapping of a port identifier to a **location** of any connection port. In fact, again, Merchant is silent as to the location of any of the ports. Accordingly, Merchant fails to teach or suggest that the **location-specific connection ports are identified by assigning a port identifier that is mapped to a location of the connection port** as claimed in independent claims 7 and 18. Applicants respectfully submit that both Rijhsinghani and Denning also fail to teach or suggest the above recited feature. Accordingly, the above recited feature is yet more evidence of the patentability of independent claims 7 and 18 over the cited references taken either alone or in combination.

Claims 3, 5, 8-11, 14, 16 and 20-23 depend either directly or indirectly from corresponding independent claims 1, 7 and 18, and thus include all the recitations of their corresponding independent claims. Dependent claims 3, 5, 8-11, 14, 16 and 20-23 are patentable for at least the same reasons as given above for independent claims 1, 7 and 18.

Accordingly, for all the reasons stated above, Applicants respectfully submit that the rejections of claims 1, 3, 5, 7-11, 14, 16, 18 and 20-23 are overcome.

### **III. The dependent claims recite patentable subject matter.**

Although the dependent claims are each patentable at least due to dependency from independent claims that are believed to be allowable, yet further reasons for the patentability of several dependent claims will be provided below. As such, Applicants traverse the rejections of these claims by providing arguments that have been previously provided in response to the final Office Action. To the extent that any of the rejections is maintained, Applicants respectfully request an answer to the substance of each of the arguments below as required under MPEP 707.07(f).

#### **Claims 6 and 15**

Claims 6 and 15 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Merchant, in view of Rijhsinghani, in view of Denning, and further in view of Hunt et al. (U.S. Patent No. 6,539,422, hereinafter "Hunt").

As stated above, Merchant, Rijhsinghani and Denning fail, individually and in combination, to teach or suggest a **location-specific connection port** as claimed in independent claims 1 and 7. Hunt is directed to an automatic data collection (ADC) device having a network communications capability. There is no teaching or suggestion in Hunt of any **location-specific connection port**. Thus, the cited references, either individually or in combination, fail to render independent claims 1 and 7 obvious. Claims 6 and 15 depend indirectly from independent claims 1 and 7, respectively, and thus include all the recitations of their corresponding independent claims. Dependent claims 6 and 15 are patentable for at least those reasons given above for independent claims 1 and 7.



Furthermore, Applicants continue to assert that Hunt is not a proper reference to be combined with Merchant, Rijhsinghani and Denning since Hunt is not analogous art. To rely on a reference under 35 U.S.C. §103, it must be analogous prior art. See MPEP 2141.01(a). The two-part test for analogous art requires that “the reference must either be in the field of applicant’s endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.” *In re Oetiker*, 977 F.2d 1443, 1446, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992). See also *State Contracting & Eng’g Corp. v. Condotte America, Inc.*, 346 F.3d 1057, 1069, 68 USPQ2d 1481, 1490 (Fed.Cir. 2003) (where the general scope of a reference is outside the pertinent field of endeavor, the reference may be considered analogous art if subject matter disclosed therein is relevant to the particular problem with which the inventor is involved). Hunt is directed to a method and system for remotely controlling operation of networked ADC devices, such as bar code readers. The problem to be addressed in this art is allowing a plurality of ADC devices to communicate to a network. To the contrary, the present application is directed to location-based identification of data packet senders/receivers. The problem to be addressed in this art is providing services responsive to the location of a user. Hunt and the present application are not in the same field of endeavor. Additionally, the present application involves determining a location of a network user. However, Hunt is unconcerned with the issue of network user location. There would be no reason for one skilled in the art of providing location-based services to look to the art of networking ADC devices. Therefore, Hunt is not reasonably pertinent to the particular problem with which the inventor was concerned. Thus, Hunt is not an appropriate reference under 35 U.S.C. §103. Furthermore, Applicants respectfully request that any subsequent rejection address the sufficiency of Hunt as a reference, since Applicants arguments have not yet been addressed on the record. Since neither Merchant, Rijhsinghani nor Denning teach a querying agent using Extensible Markup Language (XML) as claimed in claims 6 and 15, it is respectfully submitted that claims 6 and 15 are not obvious in view of the cited references.

Accordingly, Applicants respectfully submit that the rejections of claims 6 and 15 are overcome.

Claims 21 and 22

Claims 21 and 22 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Merchant, in view of Rijhsinghani, in view of Denning, and further in view of Hernandez et al. (U.S. Patent No. 6,208,977, hereinafter "Hernandez").

As stated above, Merchant, Rijhsinghani and Denning fail, individually and in combination, to teach or suggest a **location-specific connection port** as claimed in independent claim 18. There is no teaching or suggestion in Hernandez of any **location-specific connection port**, nor is Hernandez cited as teaching such feature. Thus, the cited references, either individually or in combination, fail to render independent claim 18 obvious. Claims 21 and 22 depend directly from independent claim 18, and thus include all the recitations of independent claim 18. Accordingly, dependent claims 21 and 22 are patentable for at least those reasons given above for independent claim 18.

Although dependent claims 21 and 22 are patentable at least due to their dependency from independent claim 18, as stated above, there are still further reasons for the patentability of dependent claims 21 and 22. For example, the final Office Action has failed to establish a prima facie case of obviousness with respect to dependent claims 21 and 22, since the final Office Action failed to provide any motivation for combining Hernandez with the other references. In this regard, a teaching or motivation to combine the references is essential in order to properly combine references. *In re Fine*, 337 F.2d 1071, 1075 (Fed. Cir. 1988). In fact, the Court of Appeals for the Federal Circuit has stated that, "[c]ombining prior art references without evidence of such a suggestion, teaching, or motivation simply takes the inventor's disclosure as a blueprint for piecing together the prior art to defeat patentability -- the essence of hindsight." *In re Dembiczak*, 175 F.3d 994 (Fed. Cir. 1999). Although the evidence of a suggestion, teaching, or motivation to combine the references commonly comes from the prior art references themselves, the suggestion, teaching, or motivation can come from the knowledge of one of ordinary skill in the art or the nature of the problem to be solved. *Id.* In any event, **the showing must be clear and particular** and "[b]road conclusory statements regarding the teaching effect of multiple references, standing alone, are not 'evidence'." *Id.* Although the final Office Action fails to assert any motivation to combine Hernandez and the cited references, Applicants

respectfully submit that, in any case, the cited references fail to provide any clear and particular showing that would qualify as “evidence”, as required under the patent laws, of motivation to combine the cited references. Accordingly, Applicants respectfully submit that there is no motivation to combine the references.

Since the references cannot properly be combined, it is respectfully submitted that the rejections of claims 21 and 22 based on the combination of these references is overcome.

**Newly Added Claims**

Applicants have added new claims 24-26 to more particularly define aspects of the present application. The new claims include no new matter and are fully supported by the specification and the drawings of the present application.

Accordingly, it is believed that the new claims are in condition for allowance.

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Amdt. dated 05/15/2006  
Reply to Advisory Action of 04/11/2006

### **CONCLUSION**

In view of the amendment and the remarks submitted above, it is respectfully submitted that the present claims are in condition for immediate allowance. It is therefore respectfully requested that a Notice of Allowance be issued. The Examiner is encouraged to contact Applicants' undersigned attorney to resolve any remaining issues in order to expedite examination of the present invention.

It is not believed that extensions of time or fees for net addition of claims are required, beyond those that may otherwise be provided for in documents accompanying this paper. However, in the event that additional extensions of time are necessary to allow consideration of this paper, such extensions are hereby petitioned under 37 CFR § 1.136(a), and any fee required therefore (including fees for net addition of claims) is hereby authorized to be charged to Deposit Account No. 16-0605.

Respectfully submitted,



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